CLAIMS

What is claimed is:

1. A geographical location communication system comprising:

a plurality of references, each having reference positional data;

a mobile unit within a region covered by a reference, the mobile unit capable of determining the geographical location (geo-location) of the mobile unit; and

a locator to receive compressed geo-location data of the mobile unit and to determine the geo-location of the mobile unit by comparing the compressed geo-location data against the reference positional data of the reference covering said region.

2. A system of claim 1, wherein the mobile unit determines the geo-location using a Global Position System.

3. A system of claim 1, wherein the compressed geo-location data is in units of latitude and longitude.

4. A system of claim 3, wherein the compressed geo-location data includes at most one least significant degree digit of the latitude and at most two least significant degree digits of the longitude.

5. A system of claim 4, wherein the locator determines the most significant degree digit of the latitude and at least the most significant degree digit of the longitude.

6. A method for communicating geographical location comprising:

establishing a plurality of references, each having reference positional data and an identification (ID) code;

determining the geographical location (geo-location) of a mobile unit operating in a region;

receiving a compressed geo-location data of the mobile unit and a reference data of a reference covering said region; and

recovering the geo-location of the mobile unit by comparing the compressed geo-location data against a reference positional data, said reference positional data obtained from the received reference data.

7. A method of claim 6, wherein determining the geo-location of the mobile unit using a Global Position System.

8. A method of claim 6, wherein the compressed geo-location data is in units of latitude and longitude.

9. A method of claim 8, wherein the compressed geo-location data includes at most one least significant degree digit of the latitude and at most two least significant degree digits of the longitude.

10. A method of claim 9, wherein recovering the most significant degree digit of the latitude and at least the most significant degree digit of the longitude.

11. A cellular network comprising:

a plurality of cellular systems, each having reference positional data;

a mobile unit within a region covered by a cellular system, the mobile unit capable of determining the geographical location (geo-location) of the mobile unit; and

an application service provider (ASP) to receive compressed geo-location data of the mobile unit and to determine the geo-location of the mobile unit by comparing the compressed geo-location data against the reference positional data of the reference covering said region.

12. A network of claim 11, wherein the mobile unit determines the geo-location using a Global Position System.

13. A network of claim 11, wherein the compressed geo-location data is in units of latitude and longitude.

14. A network of claim 13, wherein the compressed geo-location data includes at most one least significant degree digit of the latitude and at most two least significant degree digits of the longitude.

15. A network of claim 14, wherein the ASP determines the most significant degree digit of the latitude and at least the most significant degree digit of the longitude.

16. A method for communicating geographical location in a cellular network comprising:

determining the geographical location (geo-location) of a mobile unit operating in a region;

receiving a compressed geo-location data of the mobile unit and an identification code corresponding to a cellular system covering said region;

recovering the geo-location of the mobile unit by comparing the compressed geo-location data against a reference positional data, said reference positional data obtained from the received identification code.

17. A method of claim 16, wherein the identification code is a system identification code of the cellular system covering said region.

18. A method of claim 16, wherein the identification code is one of a cell cite, a point code of a home location register, a point code of a visiting location register or a point code of a mobile switch center.

19. A method of claim 16, wherein determining the geo-location of the mobile unit using a Global Position System.

20. A method of claim 16, wherein the compressed geo-location data is in units of latitude and longitude.

21. A method of claim 20, wherein the compressed geo-location data includes one least significant degree digit of the latitude and at most two least significant degree digits of the longitude.

22. A method of claim 21, wherein recovering the most significant degree digit of the latitude and at least the most significant degree digit of the longitude.

23. A mobile asset tracking system comprising:

a plurality of geographical references, each having reference positional data;

a mobile asset installed with a mobile unit operating in a region covered by a geographical reference, the mobile unit to determine the geographical location (geo-location) of the mobile asset and to report a compressed geo-location data of the mobile asset; and

a locater to receive the compressed geo-location data of the mobile unit and to determine the geo-location of the mobile asset by comparing the compressed geo-location data against a reference positional data of the reference covering said region.

24. A system of claim 23, wherein the mobile unit determines the geo-location using a Global Position System.

25. A system of claim 23, wherein the compressed geo-location data is in units of latitude and longitude.

26. A system of claim 25, wherein the compressed geo-location data includes at most one least significant degree digit of the latitude and at most two least significant degree digits of the longitude.

27. A system of claim 26, wherein the locater determines the most significant degree digit of the latitude and at least the most significant degree digit of the longitude.

28. A system of claim 23, wherein the compressed geo-location data is transmitted through a cellular network.